

a quarter wave retarder plate, disposed with respect to the laser so that the emitted laser light passes through the quarter wave retarder plate prior to transmission of the emitted laser light through the optical transmission system, the quarter wave retarder plate causing the emitted laser light to become circularly polarized with a predefined handedness;

wherein

the quarter wave retarder plate is also disposed so that light reflected by the optical transmission system back toward the laser passes through the quarter wave retarder plate prior to reaching the laser, the quarter wave retarder plate causing the reflected light to become linearly polarized with a polarization that is orthogonal to the emitted laser light emitted by the laser; and

the laser apparatus, including the quarter wave retarder plate, is configured to direct the reflected light, polarized orthogonally to the light emitted by the laser, back in a direction of the laser and at least partially back into the laser.

2. The laser apparatus of claim 1, further including a lens, wherein the quarter wave retarder plate is disposed between the laser and the lens, and the lens and quarter wave retarder plate are together configured to direct the reflected light, polarized orthogonally to the light emitted by the laser, back in a direction of the laser.

3 - 4. (Canceled)

5. (Amended) Laser apparatus for generating laser light to be transmitted through an optical transmission system, comprising:

a laser that emits light that is substantially linearly polarized;

a sealed housing in which the laser is mounted, the housing having a window through which the emitted laser light is transmitted;

a quarter wave retarder plate mounted on the window of the sealed housing, disposed with respect to the laser so that the emitted laser light passes through the quarter wave retarder plate prior to transmission of the emitted laser light through the optical transmission system, the quarter wave retarder plate causing the emitted laser light to become circularly polarized with a predefined handedness; and

a linear polarizer mounted on the window of the sealed housing and disposed between the laser and the quarter wave retarder plate;

wherein

the quarter wave retarder plate is also disposed so that light reflected by the optical transmission system back toward the laser passes through the quarter wave retarder plate prior to reaching the laser, the quarter wave retarder plate causing the reflected light to become linearly polarized with a polarization that is orthogonal to the emitted laser light emitted by the laser; and

the linear polarizer blocks the reflected light after it passes through the quarter wave retarder plate.

6. The laser apparatus of claim 5, wherein the linear polarizer is adjacent a surface of the quarter wave retarder plate that faces the laser.

7. (Amended) Laser apparatus for generating laser light to be transmitted through an optical transmission system, comprising:

a laser that emits light that is substantially linearly polarized; and

a quarter wave retarder plate, disposed with respect to the laser so that the emitted laser light passes through the

quarter wave retarder plate prior to transmission of the emitted laser light through the optical transmission system, the quarter wave retarder plate causing the emitted laser light to become circularly polarized with a predefined handedness;

a hermetically sealed housing in which the laser is mounted, the housing having a window through which the emitted laser light is transmitted;

wherein

the quarter wave retarder plate is also disposed so that light reflected by the optical transmission system back toward the laser passes through the quarter wave retarder plate prior to reaching the laser, the quarter wave retarder plate causing the reflected light to become linearly polarized with a polarization that is orthogonal to the emitted laser light emitted by the laser;

the laser apparatus, including the quarter wave retarder plate, is configured to direct the reflected light, polarized orthogonally to the light emitted by the laser, back in a direction of the laser and at least partially back into the laser; and

the quarter wave retarder plate is mounted on the window of the housing.

8 - 9. (Canceled)

10. (Amended) The laser apparatus of claim 7, further including a lens disposed between the laser and the optical transmission system, wherein the quarter wave retarder plate is disposed between the laser and the lens.

11. (Amended) Laser apparatus for generating laser light to be transmitted through an optical transmission system, comprising:

a laser that emits light that is substantially linearly polarized; and

a quarter wave retarder plate, disposed with respect to the laser so that the emitted laser light passes through the quarter wave retarder plate prior to transmission of the emitted laser light through the optical transmission system, the quarter wave retarder plate causing the emitted laser light to become circularly polarized with a predefined handedness;

a hermetically sealed housing in which the laser is mounted;

wherein

the quarter wave retarder plate is disposed to form a window of the housing through which the emitted laser light is transmitted;

the quarter wave retarder plate is also disposed so that light reflected by the optical transmission system back toward the laser passes through the quarter wave retarder plate prior to reaching the laser, the quarter wave retarder plate causing the reflected light to become linearly polarized with a polarization that is orthogonal to the emitted laser light emitted by the laser; and

the laser apparatus, including the quarter wave retarder plate, is configured to direct the reflected light, polarized orthogonally to the light emitted by the laser, back in a direction of the laser and at least partially back into the laser.

12 - 13. (Canceled)

14. The laser apparatus of claim 1, further including a lens disposed between the laser and the optical transmission system, wherein the quarter wave retarder plate is disposed between the lens and the optical transmission system.

15. (Amended) Laser apparatus for generating laser light to be transmitted through an optical transmission system, comprising:

a laser that emits light that is substantially linearly polarized;

a hermetically sealed housing in which the laser is mounted, the housing having a window through which the emitted laser light is transmitted; and

a quarter wave retarder plate, disposed with respect to the laser so that the emitted laser light passes through the quarter wave retarder plate prior to transmission of the emitted laser light through the optical transmission system, the quarter wave retarder plate causing the emitted laser light to become circularly polarized with a predefined handedness;

wherein

the quarter wave retarder plate is also disposed so that light reflected by the optical transmission system back toward the laser passes through the quarter wave retarder plate prior to reaching the laser, the quarter wave retarder plate causing the reflected light to become linearly polarized with a polarization that is orthogonal to the emitted laser light emitted by the laser; and

the laser apparatus, including the quarter wave retarder plate, is configured to direct the reflected light, polarized orthogonally to the light emitted by the laser, back in a direction of the laser and at least partially back into the laser.

16. The laser apparatus of claim 15, further including a lens disposed between the laser housing and the optical transmission system, wherein the quarter wave retarder plate is disposed between the housing and the lens.

17 - 20. (Canceled)

21. The laser apparatus of claim 15, wherein the quarter wave retarder plate is disposed to form part of the housing.

22. (Canceled)

23. The laser apparatus of claim 15, further including a lens disposed between the laser housing and the optical transmission system, wherein the quarter wave retarder plate is disposed between the lens and the optical transmission system.

24. The laser apparatus of claim 1, wherein the laser has an associated oscillation mode, and the reflected light, after passing through the quarter wave plate, has a polarization state that does not couple back into the laser's oscillation mode.

25. The laser apparatus of claim 15, wherein the laser has an associated oscillation mode, and the reflected light, after passing through the quarter wave plate, has a polarization state that does not couple back into the laser's oscillation mode.

26. (Canceled)

27. The laser apparatus of claim 5, further including a lens disposed between the laser and the optical transmission system, wherein the quarter wave retarder plate is disposed between the laser and the lens.

28. (Amended) The laser apparatus of claim 5, wherein the quarter wave retarder plate is disposed to form a window of the housing through which the emitted laser light is transmitted.